Listing of Claims:

1. (currently amended) A cardiac pacemaker comprising a stimulation pulse generator (RVP; LVP) adapted for biventricular stimulation of a heart, which is to be connected to at least one right-ventricular electrode adapted for the stimulation of a right ventricle of the heart and to at least one left-ventricular electrode adapted for the stimulation of a left ventricle of the heart and is connected to a control unit and is adapted to trigger right-ventricular and left-ventricular stimulation pulses with an interventricular delay time which is adjustable by means of the control unit, wherein the control unit is connected to an impedance detection unit which is adapted to be connected to a plurality of intercardiac electrodes and is adapted to form from an input signal formed by the impedance detection unit and dependent on ~~the~~ an intracardiac impedance, an output signal indicating an optimum biventricular stimulation mode,

wherein the control unit is adapted [[

]]~~either~~ to adjust the interventricular delay time~~, to indicate the electrode position, or to indicate the univentricular or biventricular stimulation mode,~~ at which a second derivative of the pattern of the intracardiac impedance during a cardiac cycle ~~or the intracardiac impedance averaged over a plurality of cardiac cycles.~~ is at the greatest~~, or~~

~~alternatively or additionally, to derive the interventricular delay time in dependence on the maximum value of the impedance during a cardiac cycle or the intracardiac impedance averaged over a plurality of cardiac cycles~~.

2. (previously presented) A cardiac pacemaker as set forth in claim 1, wherein the control unit is adapted to trigger various biventricular stimulation modes and to evaluate the intracardiac impedance for each stimulation mode.

3. (previously presented) A cardiac pacemaker as set forth in claim 1, wherein the control unit is adapted to form from an input signal formed by the impedance detection unit and dependent on the intracardiac impedance, an output signal indicating an optimum interventricular delay time.

4. (previously presented) A cardiac pacemaker as set forth in claim 1, wherein the control unit is adapted to form from an input signal formed by the impedance detection unit and dependent on the intracardiac impedance, an output signal determining the interventricular delay time.

5. (previously presented) A cardiac pacemaker as set forth in claim 1, wherein the interventricular delay time is adjustable at between 20 and 40 ms.

6. (previously presented) A cardiac pacemaker as set forth in claim 1, wherein the stimulation pulse generator (RVP; LVP) is adapted to be connected to different ventricular electrodes or ventricular electrodes which are variable in respect of their position in the heart, wherein the control unit is adapted to evaluate intracardiac impedances for various electrode configurations or electrode positions and to indicate an optimum electrode position or configuration.

7. (cancelled)

8. (previously presented) A cardiac pacemaker as set forth in claim 1, wherein the impedance detection unit is adapted to detect the impedance by way of voltage measurement which takes place between two electrodes of different electrode lines.

9. (previously presented) A cardiac pacemaker as set forth in claim 1, wherein the cardiac pacemaker is adapted to produce a current between a pacemaker housing and an intracardiac electrode for impedance measurement.

10. (previously presented) A cardiac pacemaker as set forth in claim 8 wherein the electrodes for voltage measurement are different from the electrodes for producing the current for impedance measurement.

11. (previously presented) A cardiac pacemaker as set forth in claim 9 wherein the cardiac pacemaker is adapted to produce a current for impedance measurement, which is of a substantially constant current strength of between 100 and 500 μA.

12. (previously presented) A cardiac pacemaker as set forth in claim 11 wherein the cardiac pacemaker is adapted to produce bi-phase current pulses for impedance measurement.

13. (previously presented) A cardiac pacemaker as set forth in claim 12, wherein the cardiac pacemaker is adapted to produce the bi-phase current pulses at a repetition rate of between 100 to 150 Hz.

14. (previously presented) A cardiac pacemaker as set forth in claim 13 wherein the cardiac pacemaker is adapted to produce bi-phase current pulses at a pulse duration of between 20 and 40 μs.

15. (previously presented) A cardiac pacemaker as set forth in claim 1, wherein the impedance detection unit or the control unit is adapted to average the impedance in a time window of between 50 and 300 ms duration.

16. (previously presented) A cardiac pacemaker as set forth in claim 15 characterized in that the impedance detection unit or the control unit is adapted to start the time window with the detection of a left-ventricular event (contraction).

17. (previously presented) A cardiac pacemaker as set forth in claim 15, wherein the impedance detection unit or the control unit is adapted to calculate an intracardiac impedance pattern.

18. (previously presented) A cardiac pacemaker as set forth in claim 15, wherein the impedance detection unit or the control unit is adapted to determine one or more of the following parameters of the intracardiac impedance pattern: Z_{ED}, Z_{ES}, T_{ES}, Z_{min}, T_{min}, $(Z_{ES} - Z_{ED})$, $(Z_{ES} - Z_{min})$, $((Z_{ES} - Z_{min})/T_{ES})$, $((Z_{ES} - Z_{min}) /(T_{ES} - T_{min}))$, Z'_{max}, Z''_{max}, T'_{max} and T''_{max}.

19. (previously presented) A cardiac pacemaker as set forth in claim 18 wherein the cardiac pacemaker is in the form of a dual-chamber pacemaker with at least one ventricular and one atrial detection unit (VS, AS), for the detection of ventricular and atrial events respectively.

20. (previously presented) A cardiac pacemaker as set forth in claim 19 wherein the cardiac pacemaker is in the form of a rate-adaptive cardiac pacemaker in which a stimulation rate is determined on the basis of a measurement value which is characteristic of a physiological demand of a patient.

21. (previously presented) A cardiac pacemaker as set forth in claim 19 wherein the cardiac pacemaker is in the form of a rate-adaptive cardiac pacemaker in which a stimulation rate is set on the basis of an evaluation of the intracardiac impedance, in such a way that the variation in the intracardiac impedance is maximized.

22. (new) A cardiac pacemaker comprising a stimulation pulse generator (RVP; LVP) adapted for biventricular stimulation of a heart, which is to be connected to at least one right-ventricular electrode adapted for the stimulation of a right ventricle of the heart and to at least one left-ventricular electrode adapted for the stimulation of a left ventricle of the heart and is connected to a control unit and is adapted to trigger right-ventricular and left-ventricular stimulation pulses with an interventricular delay time which is adjustable by means of the control unit, wherein the control unit is connected to an impedance detection unit which is adapted to be connected to a plurality of intercardiac electrodes and is adapted to form from an input signal formed by the impedance detection unit and dependent on an intracardiac impedance, an output signal indicating an optimum biventricular stimulation mode,

wherein the control unit is adapted to derive the interventricular delay time in dependence on the maximum value of the impedance during a cardiac cycle or the intracardiac impedance averaged over a plurality of cardiac cycles and

wherein the cardiac pacemaker is in the form of a rate-adaptive cardiac pacemaker in which a stimulation rate is set on the basis of an evaluation of the intracardiac impedance, in such a way that the difference between the maximum detected impedance and the minimum detected impedance is maximized.

23. (new) A cardiac pacemaker as set forth in claim 22 wherein the control unit is adapted to derive the interventricular delay time in dependence on the maximum value of the impedance during a cardiac cycle.

24. (new) A cardiac pacemaker as set forth in claim 22 wherein the control unit is adapted to derive the interventricular delay time in dependence on the intracardiac impedance averaged over a plurality of cardiac cycles.

25. (new) A cardiac pacemaker as set forth in claim 22 wherein the interventricular delay time is adjustable at between 20 and 40 ms.

26. (new) A cardiac pacemaker as set forth in claim 22, wherein the cardiac pacemaker is adapted to produce the bi-phase current pulses at a repetition rate of between 100 to 150 Hz.

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